

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-40 are allowed. The following is an examiner's statement of reasons for allowance: the prior art fails to teach or make obvious an electrical machine for converting electrical energy into mechanical energy and/or mechanical energy into electrical energy, the machine comprising: a rotor having a plurality of rotor poles; a stator for rotatably receiving said rotor and having field magnet means for generating a first magnetomotive force between said rotor and said stator, the stator incorporating at least two electrical windings at least one which is an armature winding adapted to carry electrical current varying in synchronism with rotation of said rotor relative to said stator to generate a varying second magnetomotive force having a component transverse to said first magnetomotive force; control means for controlling supply of electrical current to the or each said armature winding; and position sensing means for detecting at least one induced first electrical signal dependent on rotational position of said rotor relative to said stator, the or each said induced first electrical signal being induced in a respective one of said windings by a voltage across at least one other of said windings, said voltage being a requirement of normal operation of the machine to convert electrical energy into mechanical energy and/or mechanical energy into electrical energy, to thereby supply at least one second electrical signal to said control means representative of the rotational position of said rotor relative to said stator. The prior art fails to teach or make obvious a method of determining the rate of change of current in at least one winding of an electrical machine for converting electrical energy into mechanical energy and/or mechanical energy into electrical energy, the method comprising monitoring a voltage induced in at least one respective coil magnetically coupled to a magnetic field generated by a conductor carrying said current.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renata McCloud whose telephone number is (571) 272-2069. The examiner can normally be reached on Mon.- Fri. from 5:30 am - 2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-2800 ext. 37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Renata McCloud
Examiner
Art Unit 2837

Rdm
/Lincoln Donovan/
Supervisory Patent Examiner, Art Unit 2837